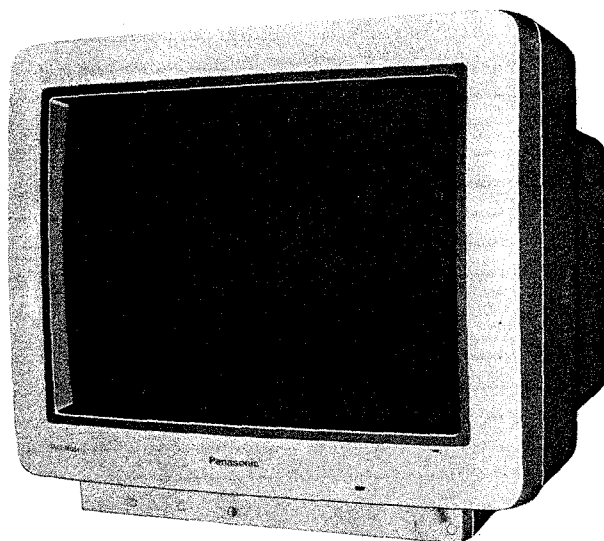




# Operating Instructions

RGB COMPUTER DISPLAY

## TX-14M6E



### **Panasonic®**

Read these instructions completely before operating this display.

# Contents / Inhalt / Sommaire / Indice

## ENGLISH

■ Dear Panasonic Customer .....	1
■ Safety Precautions .....	1
■ Precautions .....	2
■ Features .....	2
■ Specifications .....	3
■ Control Locations .....	4
■ Operations .....	4
■ Connections .....	5
■ In case of Difficulty .....	6
■ Monitor Care .....	6

## DEUTSCH

■ HINWEIS .....	7
■ FREIE UND HANSESTADT HAMBURG .....	8
■ Bescheinigung des Herstellers/Importeurs .....	9
■ Lieber Panasonic Kunde .....	10
■ Sicherheitshinweis .....	10
■ Vorsichtsmaßnahmen .....	11
■ Merkmale .....	11
■ Technische Daten .....	12
■ Anordnung der Bedienungselemente .....	13
■ Bedienung .....	13
■ Anschlüsse .....	14
■ Bei Störungen .....	15
■ Monitorpflege .....	15

## FRANCAIS

■ Cher client Panasonic .....	17
■ Précautions de sécurité .....	17
■ Précautions .....	18
■ Caractéristiques .....	18
■ Caractéristiques techniques .....	19
■ Disposition des commandes .....	20
■ Utilisation .....	20
■ Raccordements .....	21
■ En cas de problème .....	22
■ Entretien du moniteur .....	22

## ESPAÑOL

■ Estimado cliente de Panasonic .....	23
■ Medidas de seguridad .....	23
■ Precauciones .....	24
■ Características .....	24
■ Especificaciones .....	25
■ Ubicación de los controles .....	26
■ Operación .....	26
■ Conexiones .....	27
■ En caso de problemas .....	28
■ Cuidado del visualizador .....	28

### ● Power supply cord

For safe operation of the monitor in West Germany, use only a VDE-approved cord set (Detachable type). For safe operation of the monitor use only an UL listed/CSA certified cord set, type SVT or SJT, three No. 18 AWG conductors in USA and CANADA. Use power cords suited to your area.

### ● NETZKABEL

Für den sicheren Betrieb des Monitors in der Bundesrepublik Deutschland, einschließlich West-Berlin, ist es erforderlich, eine steckbare Geräteanschlußleitung mit VDE-Zeichen zu verwenden. Aus Gründen der Betriebssicherheit muß für diesen Monitor im dem USA und Kanada ein dreiadriges (AWG-Kontakte) SVT oder SJT Nr. 18 Netzkabel mit UL/CSA-Zertifikat verwendet werden. Verwenden Sie jeweils dem Stromnetz entsprechende Kabel.

### ● Cordon secteur

Pour un fonctionnement sans risque du moniteur en Allemagne Fédérale n'utiliser qu'un jeu de cordon agréé VDE (type détachable). Pour un fonctionnement sans risque du moniteur, aux Etats-Unis et au Canada, n'utiliser qu'un jeu de cordon listé UL/certifié CSA, à trois conducteurs No.18 AWG type SVT ou SJT. Utiliser des cordons secteur appropriés à la région.

### ● Cable de alimentación

Para la segura operación del monitor en Alemania Occidental, emplee solamente un juego de cable aprobado por VDE (tipo desmontable). Para la segura operación del monitor, emplee solamente un juego de cable que figure en las listas UL/certificado por CSA, tipo SVT o SJT, de tres conductores AWG N° 18 en EE.UU y Canada. Emplee el cable de alimentación adecuado para su área.

## Dear Panasonic Customer

Welcome to the Panasonic family of customers. It is our desire that you have many years of enjoyment from your new computer display.

In keeping with the state of the art, quality, reliability and performance have been built into your unit.

This instruction booklet will help you use this computer display, and you will find that Panasonic is "Just slightly ahead of our time".

### Customer's Record

The serial number of this product may be found on its back cover.

You should note the serial number of this unit in the space provided and retain this booklet as a permanent record of your purchase to aid in identification in the event of theft or loss.

Model number: TX-14M6E

Serial number: \_\_\_\_\_

## Safety Precautions

### WARNING THIS APPARATUS MUST BE EARTHED FOR YOUR SAFETY

To ensure safe operation, the three-pin plug supplied must be inserted only into a standard three-pin power point which is effectively earthed through the normal household wiring.

Extension cords used with the equipment must be three-core and be correctly wired to provide connection to earth. Wrongly wired cords are a major cause of fatalities.

The fact that the equipment operates satisfactorily does not imply that the power point is earthed and that the installation is completely safe.

For your safety, if in any doubt about the effective earthing of the equipment, consult your qualified Panasonic dealer.

- Using 220~240 V power supply with the selector switch set at 115 V may cause failure. Never fail to check the selector switch before connecting the AC plug.

# Precautions

1. Do not attempt to disassemble the Computer Display.  
To prevent electric shock, do not remove screws or cover. There are no user-serviceable parts inside. Refer servicing to qualified service personnel.
2. Do not operate this Computer Display beyond the temperature and humidity range specified (see specifications).
3. Do not remove the grounding pin on the power plug.  
This Computer Display is equipped with a three-wired grounding-type power plug. This is a safety feature. Do not defeat the purpose of the grounding plug.
4. Do not insert sharp objects into the Computer Display. They may cause a fire accident or failure.
5. Do not expose this unit to rain or moisture.
6. If the unit does not operate properly, turn off the power switch and remove the power plug from the outlet.

# Features

1. Compatible with Panasonic, IBM personal computers.
2. High resolution picture tube capable of displaying 2000 characters.
3. Horizontal centering control on the front allows the horizontal position of the display to be adjusted for optional viewing position depending on the interfaced computer.
4. This display can be operated in two modes, input signal timing 21.85/15.7kHz which is compatible with IBM EGA monitor.
5. This model can display up to 64 colors including black. (64 colors . . . 21.85kHz, 16 colors . . . 15.7kHz)

# Specifications

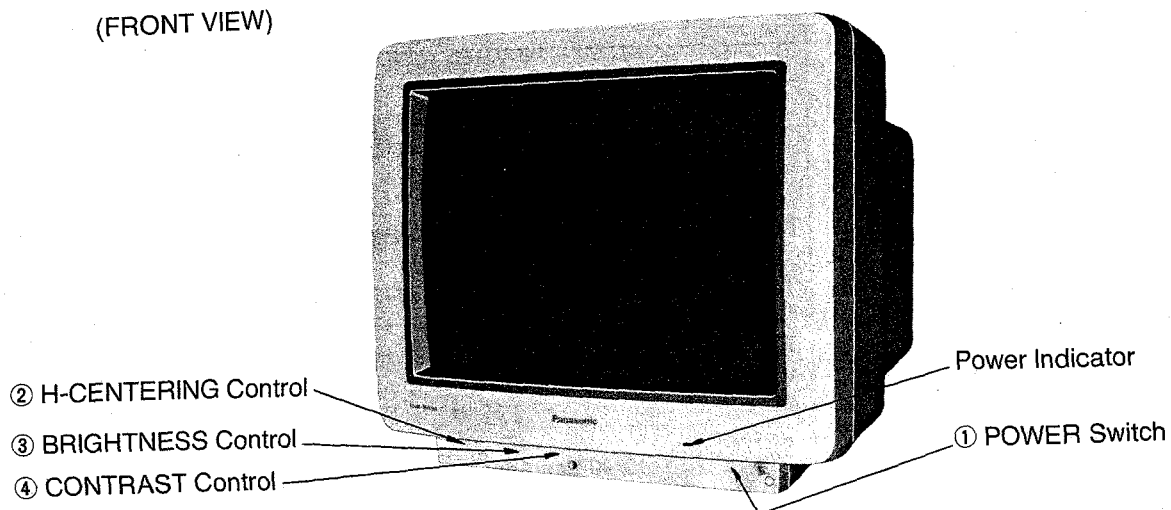
	Mode 1	Mode 2
Power Source	AC 90 ~ 140V/180 ~ 240V, 50/60Hz	
Picture Tube		
Size	14", 90°, In-Line	
Dot pitch	0.39mm	
Resolution	640(H) × 200(V) Pixels	640(H) × 350(V) Pixels
Input Signals		
Video (RGB Separate)	TTL Level (Positive)	TTL Level (Positive)
Horizontal Sync	TTL Level (Positive)	TTL Level (Positive)
Vertical Sync	TTL Level (Positive)	TTL Level (Negative)
Horizontal Frequency	15.7kHz	21.85kHz
Vertical Frequency	60Hz	60Hz
Video Amplifier		
Rise/Fall Time	40/40 Nano-sec	
Blanking Time		
Horizontal	18.99 Micro-sec	6.36 Micro-sec
Vertical	3.94 Milli-sec	0.64 Milli-sec
Display Area (Typical)	248(H) × 170(V) mm	250(H) × 170 (V) mm
Display Colors	16 Colors	64 Colors
High voltage	24.0kV typ. (At 0 Beam)	
Input Signal Connector	9-pin D-subminiature type	
Linearity		
Horizontal	Less than 7%	
Vertical	Less than 7%	
Raster Distortion		
Pincushion	Less than 2.5mm	
Trapezoid	Less than 4.0mm	
Display Characters	2,000 characters Matrix 6 × 7 dots Block 8 × 8 dots	2,000 characters Matrix 7 × 9 dots Block 8 × 14 dots
Operating Temperature	0°C - 40°C	
Operating Humidity	5% - 90%	
Storage Temperature	-40°C - 65°C	
Weight	13.0kg	
Dimensions (W × H × D)	366 × 324 × 407 mm typ.	

Specifications subject to change without notice.

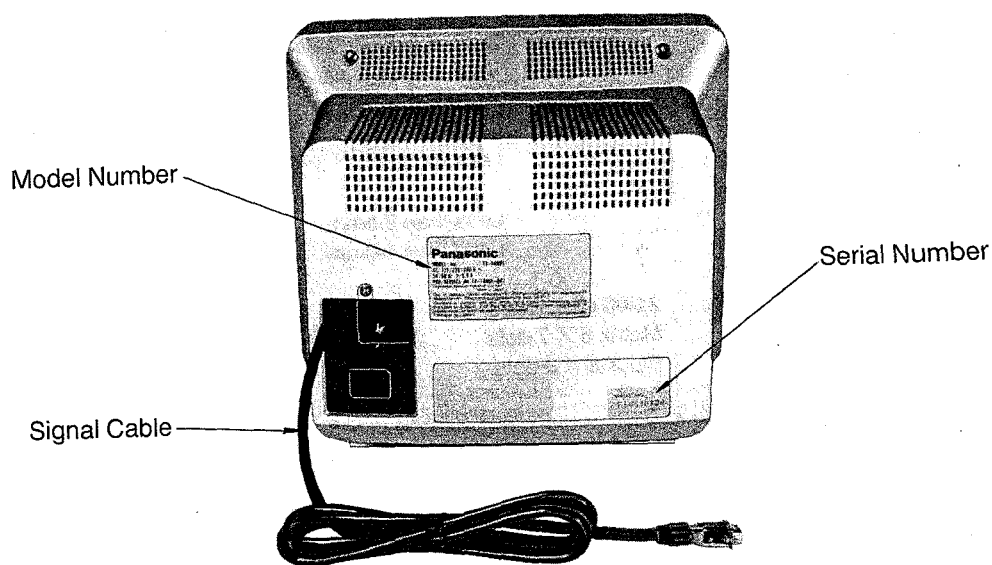
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# Control Locations

(FRONT VIEW)



(BACK VIEW)



## Operations

① POWER Switch	<p>I ..... Turn the power on.</p> <p>O ..... Turn the power off.</p>
② H-CENTERING Control	Adjust to center the displayed information horizontally.
③ BRIGHTNESS Control	Adjust brightness level for proper overall picture brightness.
④ CONTRAST Control	Adjust to vary the contrast between dark and light displays.

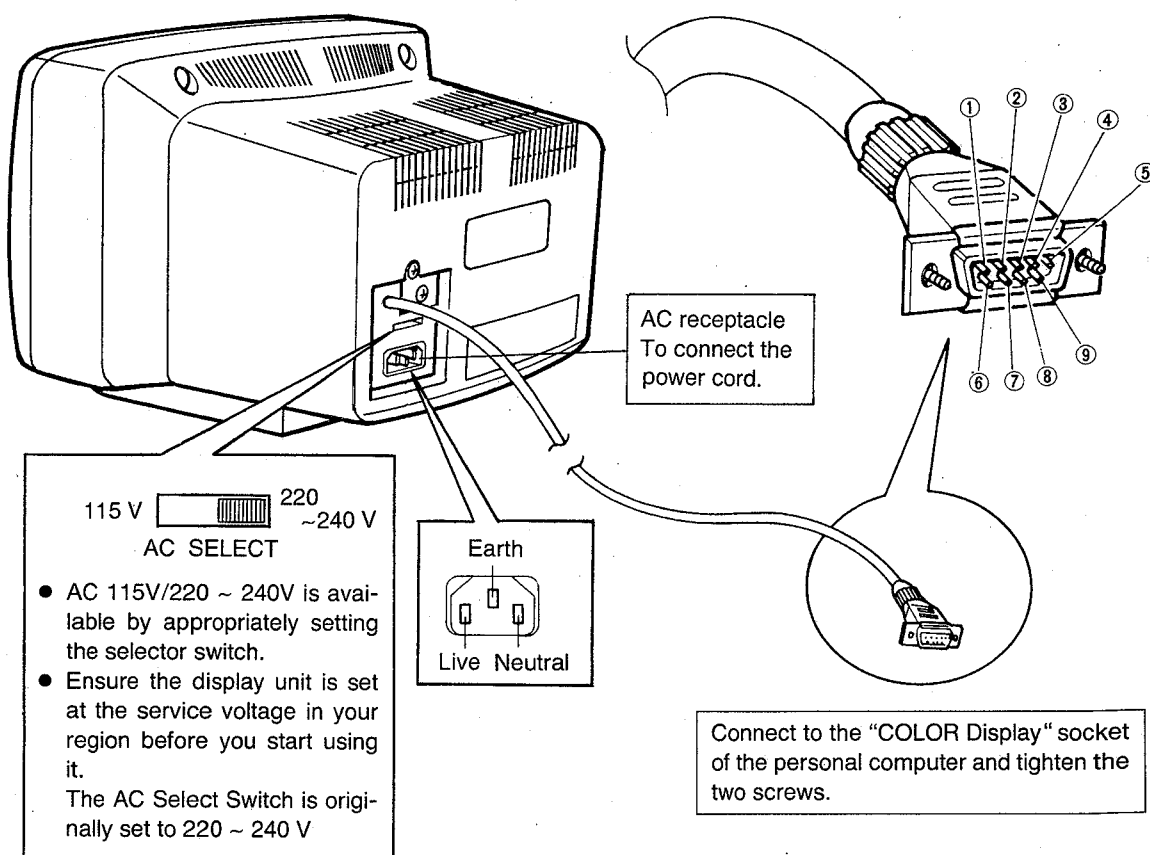
# Connections

## Preparations Before Connection

1. Install the unit on a level and hard surface. Be sure not to obstruct the ventilation holes on the cabinet.
2. Avoid exposing the display to direct sunlight or other bright lights.
3. Before connecting the Computer Display to the personal computer, make sure that both power switches are off.

## Connection

The method for connecting this Computer Display to a personal computer is as shown.



## Connector Pin Identification

Pin No.	Description
1	Signal ground
2	Video (RB) Secondary
3	Video (RA)
4	Video (GA)
5	Video (BA)
6	Video (GB) Secondary (Intensity)
7	Video (BB) Secondary
8	H. Sync
9	V. Sync

## In Case of Difficulty

If your monitor fails to operate properly, check the chart below.  
It may save you the cost of a service call.

Symptoms	Possible Causes
No picture	<ul style="list-style-type: none"> <li>● AC cord not plugged in.</li> <li>● Brightness and contrast controls turned down.</li> <li>● Video cable not connected.</li> </ul>
Poor contrast	<ul style="list-style-type: none"> <li>● Contrast adjustment is improper.</li> <li>● Low input signal level.</li> </ul>
Poor synchronization	<ul style="list-style-type: none"> <li>● Low input signal level.</li> <li>● Vertical sync polarity is incorrect.</li> </ul>

**Note:** If you have problems that can not be easily corrected, disconnect the AC plug and call your local dealer or service center.

## Monitor Care

### Location

- Place on a level support.
- Provide sufficient ventilation.
- Avoid heaters and direct sunshine.

### Cleaning

- Turn power "OFF" and remove power cord from wall outlet.
- To clean cabinet, use cloth soaked in a neutral detergent and squeezed well.
- To clean CRT, use soft cloth or tissue papers and a glass cleaner.